

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Lone Butte Masonry Sandstone
<b>Proposed Implementation Date:</b>	September 2020
<b>Proponent:</b>	Lone Butte Stone 1250 5 <sup>th</sup> Ln. N.E. Power, MT 59648
<b>Location:</b>	All of Section 11 and the E <sup>1</sup> / <sub>2</sub> SW <sup>1</sup> / <sub>4</sub> of Section 2 T20N R1E
<b>County:</b>	Cascade

### I. TYPE AND PURPOSE OF ACTION

Lone Butte Stone has requested permission to remove decorative sandstone for masonry purposes from Sections 11 and 2 in T20N-R1E. This Environmental Assessment analyzes several 5-acre parcels contained within the sections.

If the permit is executed, Lone Butte Masonry would be granted permission to remove and sell decorative sandstone from state lands. The proponent will be allowed to manually excavate stone from the ground surface using a shovel and a pickup truck. This EA does not address the use of automated excavating machinery, and the use of said machinery is not permitted upon the issuance of a corresponding permit. Any future use of automated excavating equipment will be analyzed in a separate environmental assessment.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

Lone Butte Masonry

State of Montana, Department of Natural Resources and Conservation (DNRC) - Surface and Mineral Owner. Trevor Taylor, Minerals Management Bureau Chief; Zack Winfield, Petroleum Engineer; and Heidi Crum, Helena Unit Manager completed a field evaluation on September 10, 2020. Archeologist Patrick Rennie had visited the site previously within the past year.

Edward Hastings – Ag and Grazing Lessee

Central Land Office, Montana DNRC

## 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Lone Butte Stone, Inc. will need to submit and obtain approval from the Montana Department of Environmental Quality (DEQ) before removing any resource from Montana state lands. The proponent plans to obtain several small miner's exclusion permits from DEQ. This permit allows for rock to be removed from an area of 5 acres or less.

## 3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proponent would not be allowed to remove and sell rock from Montana state lands.

Action Alternative: Lone Butte Stone would be issued a Montana DNRC permit to remove decorative sandstone from sections 2 and 11 of Township 20N Range 1 East.

## III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

### 154. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

Sections 11 and 2 T20N-R1E are made up of three members of the Blackleaf Formation; the Taft Hill Member, the Bootlegger Member, and the Vaughn Member. The Taft Hill member is composed of black shale, gray bentonitic siltstone, and glauconitic sandstone. Thickness can be as much as 590 ft in areas. The Bootlegger Member is Dark gray shale interbedded with sandstone, siltstone, and bentonite beds. It formed in a marine environment. Thickness can be as much as 328 ft. The Vaughn Member is black carbonaceous shale, light gray, greenish to pinkish bentonitic to tuffaceous siltstone and porcellanite, tuffaceous, arkosic sandstone, thin coal; conglomerate beds in western Montana. It was formed in a fluvial and coastal delta plain environment. Thickness can be as much as 656 ft.

Soils on this section consist of Marmarth Clay Loam, Tanna Clay Loam, Kobar Silty Clay Loam, and Ernem Very Stony Loam. Temporary access roads and trails will be constructed and maintained to prevent any major erosion on both sections 11 and 2.

Soil characteristics at this site include; slight to moderate erosion hazard, a medium resistance to soil compaction, medium potential for soil restoration and moderate suitability for roads on the natural surface. Wet conditions may cause periods when the native soil cannot support the use of trucks or off-road vehicles such as ATV's.

Topsoil and subsoil that is disturbed from the use of trucks or off-road vehicles will be reclaimed to their native state upon completion of the project.

#### **5. WATER QUALITY, QUANTITY AND DISTRIBUTION:**

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

Section 11 contains an unnamed tributary of the Sun River in the W<sup>1</sup>/<sub>2</sub> NE<sup>1</sup>/<sub>4</sub>. This tributary flows northeast through section 2, where it feeds a stock pond used by cattle and wildlife. There are no anticipated project impacts to the quality, or the abundance of water produced from this tributary.

A search on the Montana Ground Water Information Center website found there are five wells within 1.0 miles of the proposed project site. Three of the existing wells are located NW<sup>1</sup>/<sub>4</sub> of section 2. The other two wells are located in the NE<sup>1</sup>/<sub>4</sub> of section 10. The wells have a total depth ranging from 100-520 feet, and the static water level is from 12-100 feet. The project should not have any impact on the wells in the area, as all operations will be restricted to the ground surface.

#### **6. AIR QUALITY:**

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

An increase in airborne pollutants and particulates would be minuscule from vehicle exhaust and dust during proposed rock picking activities. The only equipment needed is personal vehicles such as pickup trucks and ATV's. No short-term impacts to air quality are expected. No long-term impacts to air quality are expected.

#### **7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

Vegetation in Sections 11 and 2 are Bluebunch Wheatgrass (*Pseudoroegneria spicata*), Needle and Thread Grass (*Hesperostipa comata*), Blue Grama (*Bouteloua gracilis*), Sandberg Bluegrass (*Poa secunda*), Prairie Junegrass (*Koeleria macrantha*), American Vetch (*Vicia americana*), Western Yarrow (*Achillea millefolium*), and Skunkbush Sumac (*Rhus trilobata*).

Vegetation on the proposed project site may be damaged by the travel by truck or ATV. Reclamation would re-establish native grasses, forbs and shrubs as stated in the gravel permit stipulations.

#### **8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

There may be minimal disruption to other wildlife in the area. The scale and length of the project should not be enough to permanently disrupt wildlife species. Species in the area include antelope, whitetail deer, mule deer, raptors and other birds, various rodents, rabbits, reptiles and others.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

A search was conducted using the Montana Natural Heritage Program database to identify point observations of species of concern in the section of the proposed activity. There were no species of concern observed in sections 2 or 11 over the past 10 years.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

A Class III inventory of cultural and paleontologic resources was conducted of the area of potential effect. A report of findings is on file with the DNRC and the Montana State Historic Preservation Office. Section 11 contains two archaeological sites. Site 24CA1745, is in the NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> of section 11. The second site, 24CA1749, is located in the NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> of section 11. Site 24CA1745 consists of cairns and stone circles. Site 24CA1749 consists of low-profile cairns. The age of the constituent stone features is uncertain. Permits issued for the removal of decorative rock will exclude the areas within sites 24CA1745 and 24CA1749.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

Impacts to aesthetics are minimal during the scope of this project. There will be increased noise from trucks and ATV's in the area, but the removal of rock should have no significant effect on the appearance of the environment. Native vegetation is expected to grow and infill areas where rocks are removed.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

The proponent estimates that a combination of 300 tons of rock will be removed from the two state lands sections. Other than the removal of sedimentary rock, the project should have no long-term effects on environmental resources

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

None.

**IV. IMPACTS ON THE HUMAN POPULATION**

- RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

No human and health safety risks were identified as a result of the proposed project other than the typical occupational hazards that coincide with rock picking operations.

**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

The proposed project is not expected to alter current or future industrial, commercial, and agricultural activities and production.

**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

The proposed project would not create, move, or eliminate jobs.

**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

No impact.

**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.*

No impact.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

No known zoning or management plans exist for this area.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

No impact.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

No impact.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

No impact.

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

No impact.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

The existing grazing lease for the applicable sections generates nearly \$1,000/year and the existing ag lease generated from \$2,880 to \$10,744 yearly over the past ten years in section 11. The proposed project will have no effect on the revenue generated from the ag and grazing leases on the section. The proposed project will increase overall revenue for each of the sections and for the Montana Tech school trust in the form of a royalty rate. The royalty rate will be based on the total amount of rock removed and sold from state lands.

**EA Checklist  
Prepared By:**

**Name:** Zackary Winfield  
**Title:** Petroleum Engineer

**Date:** 9/15/2020

**V. FINDING****25. ALTERNATIVE SELECTED:**

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a new gravel permit to Lone Butte Stone. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

1. The operator will limit operations to times when soil conditions are dry or frozen. No operations are allowed during wet soil conditions.
2. The operator will reclaim any access roads to their native habitat using soil reclamation and re-vegetation practices outlined in the applicable gravel permit.
3. The operator will monitor and spray for invasive and noxious weeds. Records of spraying operations shall be submitted to the Helena Area Office.
4. The operator will turn off all vehicles when they are not being used.



5. Any fires started on State Land as a result of activity authorized in this agreement are a liability of the licensee.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

☐

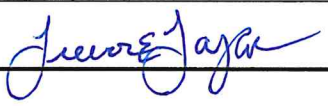
EIS

☐

More Detailed EA

☒

No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Trevor Taylor
	<b>Title:</b> MMB Bureau Chief
<b>Signature:</b> 	<b>Date:</b> 9/18/20

